International Maritime Meteorological Archive (IMMA) Format

1) Under development for Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM) and for iCOADS

2) Flexible structure, including the ability to attach original data records (e.g., GTS basic message strings)

3) Character format, with blank = universal symbol for missing data. Reading via e.g. Fortran requires processing data first as characters (to avoid confusion over zero versus missing). Software nearly ready.

S. Woodruff, 1 December 2002

IMMA Structure

1) Core: common front-end

   - Location section: yr, mo, dy, hr, lat, lon, ID, etc.

   - Regular section: basic marine met. elements (temperatures, pressure, wind, sea state, clouds, etc.)

2) Core (alone) forms a useful abbreviated record type

3) "Attachments" can be added after the core to form different record types, e.g.:

   - VOSClim record type (for contemporary ship data)

   - Historical record type

Voluntary Observing Ship (VOS) Climate (VOSClim) Record Type

- Core (108 characters)

- Attachments:

    - attm1: iCOADS (flags, etc.)

    - attm2: IMMT-2/FM13 (modern ship data elements)

    - attm3: Model QC data (from UK Met. Office)

    - attm6: Supplemental data (e.g., GTS message)

    Total record length before attm6: 315 characters

IMMA for Land Data (IMA?)

- Core: some fields shared with land data (some temperatures, pressure, wind)--others would be wasted space

- Alternative approach: create Core tuned for land data (redefine some fields--of same length: 108 characters)

- Attachments: to store additional land elements not in the Core:

  - For contemporary or historical data

  - Attaching original data is very useful and important